

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
1.967
A2Eq1

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



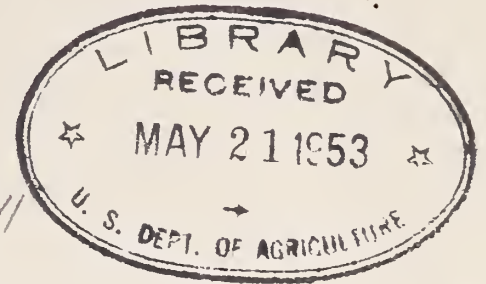
Reserve
BOOK NUMBER 1.967
839827 A2Eq1

5c
December 15, 1952

2
U.S. BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE //
5a WASHINGTON 25, D. C.

3
EQ-53,
EE

3a
6
INFORMATION FOR FORMULATORS AND DISTRIBUTORS //



The Bureau of Entomology and Plant Quarantine has developed a simple method for the housewife to use in treating washable woollens in the home to protect them against feeding damage by clothes moths and carpet beetles. A copy of a press release announcing this development is attached.

BUREAU PLANS

The Bureau is planning an intensive educational program beginning April 18, 1953, using women's magazines, radio, TV, and newspapers. A new USDA leaflet on controlling clothes moths and carpet beetles is also planned for release about that time. All these will contain recommendations for the new method of treatment.

The treatment requires the use of a DDT emulsifiable concentrate which we have designated as EQ-53. The success of our educational program depends upon a supply of EQ-53 being available in the normal retail channels by April 18.

WE ASK INDUSTRY TO COOPERATE

We are taking this means of informing industry so those interested in formulating and distributing EQ-53 will have time to go through all the steps necessary to get the product on the shelves of grocery stores, drug stores, department stores, hardware stores, and others at the proper time.

We anticipate that the educational program timed for the season when housewives are beginning to put woollens into summer storage will create a sizeable demand for EQ-53. We are in turn asking industry members to cooperate with us, and to respect the April 18 release date by holding back public advertising of their own until that time. We are also asking the press to withhold extensive coverage until April 18.

HOW EQ-53 WORKS

EQ-53 is an emulsifiable concentrate of DDT, with the proper selection of emulsifier and solvent. A DDT emulsion is formed when a small amount of the concentrate is added to the wash water. There is a selective pick-up of DDT from the emulsion by the wool and the deposit of DDT in the wool is much greater than would be anticipated on the basis of theoretical calculations. This has been proved by experimental tests and a technical paper will soon be published giving the experimental data.

FORMULA FOR EQ-53

EQ-53 contains the following ingredients by weight:

- 30% - DDT
- 10% - Non-ionic emulsifier of the polyhydric alcohol, or alcohol ether type.
- 60% - Aromatic hydrocarbon solvent with specifications listed below.

Solvent specifications:

1. Flash point - 115° F., minimum (Cleveland Open Cup)
2. Specific gravity - approximately 0.87
3. Boiling range:
 - (a) Initial boiling point - 300° F., minimum
 - (b) Percent at 330° F. - 50, minimum
 - (c) Percent at 350° F. - 90, minimum
 - (d) Final boiling point - 370° F., maximum
4. Color - 25, minimum (Saybolt chromometer)
5. DDT solubility - must dissolve at least 35%, W/W, technical DDT at 20° C.
6. Odor - although no requirement is established, it should be recognized that a strong odor is objectional to the housewife and will create the impression of an inferior or undesirable product. There should be no residual solvent odor in the woolens after they are dry.

The most satisfactory solvent found in the developmental research was Solvesso 100. Other solvents that comply with the specifications given will undoubtedly be suitable. The emulsifier used was Triton X-100, but we believe any non-ionic emulsifier of the polyhydric alcohol or alcohol ether type may perform satisfactorily. The kind of emulsifier and solvent used in EQ-53 have been carefully picked to insure (1) the proper functioning of the selective pick-up of DDT from the emulsion by the wool, (2) the highest possible safety to the user, and (3) lack of injury to the woolens being treated.

LABELING

The Bureau of Entomology and Plant Quarantine has made preliminary arrangements with the Insecticide Division of the Production and Marketing Administration with regard to the labeling of EQ-53 products. This will assist manufacturers when they submit their labels for approval and should help to speed up registration. EQ-53 will come under the jurisdiction of Federal and State laws governing the sale of insecticides. Any preparation sold as EQ-53 must comply with the specifications previously listed. An example of a type of label that will be acceptable to PMA as complying with the requirements of the Federal Insecticide Act is given below:

839827

Y O U R B R A N D

EQ-53

Mothproofer for Washable Woolens

- - -

Active ingredient - Dichloro diphenyl
trichloroethane - 30%

Inert ingredients - 70%

PRECAUTIONS

Contact of this concentrate with skin can cause toxic symptoms and should be avoided. In case it is spilled on the skin, wash immediately with soap and water. Do not use on household pets or humans. Harmful if swallowed. Keep out of the reach of children, and do not store where it will be mistaken for a food item. Infant's blankets and infant's sweaters treated with this material for storage should be dry-cleaned before being placed in use.

DIRECTIONS FOR USE

In Washing Machines - automatic or non-automatic.

1. Weigh or estimate weight of dry woolens to be washed and treated.
2. Start normal washing procedure used for woolens. After the water and soap are in the machine, add 1 tablespoonful of EQ-53 for each pound of dry woolens.
3. Proceed with washing, rinsing and drying as usual.
4. Wash hands with soap and water after handling wet treated material.
5. Drain the water containing EQ-53 from machines containing rubber agitators soon after use to prevent possible injury to the rubber.

Treating Hand-Washed Woolens.

1. Weigh or estimate weight of woolens to be washed.
2. Wash woolens as usual.

3. Add to first rinse water 1 tablespoonful of EQ-53 for each pound of dry wool. Soak woolens and stir for 3 to 5 minutes with paddle or by hand, wearing rubber gloves.
4. Follow with the normal rinsing and drying procedure.
5. Wash hands with soap and water after handling wet treated material.

Treating Clean Woolens.

Follow the directions given above for machine or hand washing but leave out the soap.

When to Treat Again.

Woolens treated with EQ-53 as directed above will be protected from clothes moth and carpet beetle attack during storage for at least one year. Washing or dry-cleaning removes the EDT and treatment should be repeated with each cleaning or washing.

Net Contents-(4 oz., 8 oz., 1 pt., etc.)

Manufactured By

(Name and Address)

